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LISTENING TO STAKEHOLDERS: AGRICULTURAL RESEARCH AND RURAL RADIO LINKAGES

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In October 2000, ISNAR, along with partners in Africa and Canada, initiated a project to investigate the linkages between agricultural research and rural radio. This project was concerned with developing a working relationship between researchers and broadcasters to ensure a two-way exchange of knowledge with farmers. The study initially focused on sub-Saharan Africa. This Briefing Paper serves to highlight results from the study's training needs and organizational constraints assessment (TNA) workshop held in March 2001 in Ghana. The top two training priorities that emerged were facilitating partnerships between research and radio, and mobilizing financial resources for collaborative activities.

The TNA results also point to future directions for nontraining interventions, including communications policy development, as well as the "added value" of research/radio linkages. This paper draws the attention of policymakers, scientists, and members of civil society working in agriculture, the environment, rural extension, and information and communication to the importance of collaborations between scientists and radio broadcasters. It also highlights priority areas for future action.

Introduction

Radio remains the most important medium for communicating with the rural populations of developing countries. This is particularly true in Africa where, according to the BBC World Service, there were an estimated 65 million radio receivers in 1996 (see figure 1). By the end of the 1990s, there were approximately 12 newspapers, 52 televisions, and 198 radios for every 1000 Africans (Niang 2001). This lack of newspapers and televisions plus the "digital divide" that exists between those who have access to the Internet and those who do not merely reinforces the importance of radio in Africa (table 1).

Rural radio is technically defined in terms of its relatively local range (25–50 km radius) or functioning at frequencies of less than 1000 MHz. However, the terminology of rural radio is more often used to refer to the multiple technologies behind rural broadcasting, which may include satellite communications and the Internet.

Radio is relevant to any strategy that involves rural development in Africa. In the last three decades, the continent has confronted a major decline in per capita food production; in the next two decades Africa is the only region of the world where the number and percentage of children who are mal-

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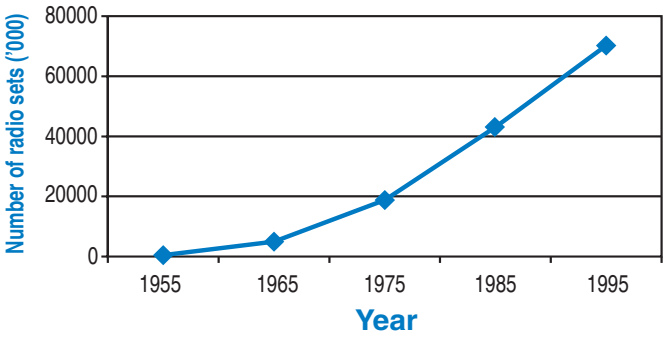

Figure 1: Radio receivers in Africa, 1955–95

Note: excluding data from South Africa
Source: International Broadcasting Audience Research Library, BBC (1996)

nourished is predicted to increase to 49 million, an increase of 50% from 1997–2020 (Rosegrant et al. 2001). Poverty is the most common cause of chronic hunger, although civil wars and political instability have reinforced the hardships experienced by the poor. The lack of an adequate income and the inability to purchase or produce enough food affects approximately 90% of the rural African population.

Radio is a key factor in strategies involving improved food security and the alleviation of rural poverty, because it involves a relatively inexpensive technology that effectively reaches rural people in their own languages. Radio programming can also complement the oral tradition of communication in many rural societies. Decentralized community radio maintains close ties to the local community and often provides local people with opportunities to voice their opinions and share their knowledge.

In Africa, women and children are the most likely victims of rural poverty and food insecurity. They also often lack access to appropriate agricultural information and inputs. Emphasis is therefore placed on research and development processes that will aid in the empowering of women farmers, such as access to resources and consideration of their indigenous knowledge. Rural radio may provide an opportunity to reach women farmers, their organizations, as well as rural schools. However, much more needs to be done to ensure that women and children become more involved in communications that focus on food security and poverty alleviation.

Agricultural research can play a role in improving rural living standards and bringing affordable food to all, yet the full potential of such research is not being realized because communication between scientists, extension staff, and farmers throughout the developing world is weak. The urgency of this situation is stated in the summary of the Eighth Session of the United Nations Commission on Sustainable Development (UNCSD 2000). The participation of poorer farmers and listening to key stakeholder groups such as women and youth in the development of sustainable agriculture and rural development serves as the basis of this global commitment.

It is in this context that ISNAR, together with four global partners, embarked on a training needs and organizational constraints assessment (TNA) to investigate how the linkage between agricultural research and rural radio can be strengthened. The partners included the University of Guelph, Canada; the Developing Countries Farm Radio Network, Canada; the Food and Agriculture Organization of the United Nations; and the Canadian International Development Agency. The project partners in Africa came from Cameroon, Ghana, Mali, and Uganda. They are comprised of two main groups of institutions: national agricultural research centers and rural radio stations. These countries were selected on the basis of existing links with project partners and their diverse experience with government and/or community farm radio broadcasting.

The TNA workshop was held in Accra, Ghana, March 27–30, 2001. Fifteen participants (seven broadcasters and eight researchers) from Cameroon, Ghana, Mali, and Uganda attended. The objectives of this paper are to provide a brief context for the project and highlight the key TNA findings regarding the linking of agricultural research with rural radio.

Table 1: Data on Radio and Internet Access for Selected African Countries

Selected Country	Radios per 1,000 people (1997)	Internet hosts per 10,000 people (Jan. 2000)
Cameroon	163	0.01
Ghana	238	0.06
Mali	54	0.00
Uganda	128	0.06
Mean low income countries	157	0.37
Mean middle income countries	359	9.96
Mean high income countries	1286	777.22

Source: World Development Report 2000/2001 and International Telecommunications Union (1999). Data includes urban and rural radio and Internet access.

Lessons Learned from Experience

The importance of rural radio was particularly emphasized in the mid-1960s when it played a critical role in disseminating information to farmers and their organizations about new technologies for wheat and rice production during the "Green Revolution" in Asia. Since then, the context in which the research/rural radio linkage operates has changed somewhat and has moved beyond the mere dissemination of new technical information to rural populations. The release of scientific information is now also closely related to the growing realization among researchers that national and international public support depends upon their ability to engage in inclusive and interactive dialogues with farmers and the broader public. This will require new or strengthened relations between rural radio broadcasters, farmers, and researchers.

The experience of international and national research institutions suggests some of the benefits of linking up with rural radio: Research findings can be shared across long distances and in languages and terminologies familiar to audiences through rural radio. This includes reaching a wide range of stakeholders including farmers; nomadic peoples; extension workers; community groups and NGOs; primary, secondary, and technical schools; local officials; and rural businesses. Radio can transmit valuable information regarding where research products are used and where data/services can be obtained, as well as what farmers think about various technologies. Radio can relay critical information such as disaster preparedness, weather, and market information. Radio magazine programs, for instance, can feature the exchange of knowledge between farmers and agricultural researchers, either through live discussions in the field or consultations via letter, telephone, or, possibly, Internet as facilitated by the radio broadcaster.

Discussions between the project partners, the historical analysis of rural radio, related international and national initiatives, and other secondary literature reviews conducted by ISNAR and its partners have identified a number of issues where research and radio activities can be improved. These include the following:

- consideration of who is the target audience for the various radio messages, and what their needs and interests are;
- creative use of the Internet to support research/radio linkages;
- building sustainable linkages and long-term solutions that might include, for instance, identifying and linking up research and radio facilities in close proximity to one another. When proximity is an obstacle, options such as publicly supported telecenters or privately run Internet cafés that offer Internet access could be explored.
- communication strategies for national agricultural research institutes and resources to ensure that these strategies are managed effectively;
- more proactive efforts to ensure that positive stories reach the rural media and programs that resolve actual problems are broadcast;
- evaluation of radio programs, including assessment of the "added value" of radio/research linkages.

Objectives of the TNA

The main objective of the TNA in Accra was to identify the factors affecting individuals' performance in linking agricultural research and rural radio in order to highlight the solution (training or nontraining) options best suited to their needs.

To achieve this objective, the TNA exercise was designed to do the following:

- review the conceptual basis for linking agricultural research and rural radio;
- distinguish between management-leadership and technical activities;
- conduct job, duty, and task analyses;
- identify technical and managerial knowledge, attitudes, and skills required to perform tasks;
- identify existing gaps in managerial knowledge, attitudes, and technical knowledge and specific skills ;
- identify organizational constraints;
- establish priorities for training needs to facilitate the design of a training plan (module) for the second stage of the project and identify nontraining interventions.

The TNA achieved this objective. The factors that affect the linkage between agricultural research and rural radio were successfully identified. Key areas for improving collaboration between researchers and broadcasters were prioritized. Both the training and nontraining interventions are summarized below.

Training Intervention

Researchers identified the following major managerial functions that were in need of improvement: conceptualization, problem solving, conflict resolution, and communication. For broadcasters, team effectiveness, technical

leadership, and decision making were the main areas that needed improvement. The following problems that prevent manager-leaders from being good leaders within agricultural research organizations and rural radio organizations were identified: lack of adequate training and skills, lack of clear organizational goals and objectives, lack of discipline and transparency, lack of adequate resources, and lack of motivation and job security.

The participants recognized leadership and management training as a vital means for improving their performance when it came to working together as researchers and broadcasters.

A TNA module and video for linking research and radio were produced and disseminated to help distribute the methodology to a broader audience.

The TNA exercise produced recommendations that the needs assessment process be strengthened and continued in subsequent phases of the project.

The project partners and participants recognized that a concerted effort to ensure that more women researchers and broadcasters are involved in the training process was necessary for future projects. Only one female (a broadcaster) attended the TNA workshop while two other female participants were unable attend.

A TNA questionnaire could also be included to effectively supplement the limited number of participants involved in the face-to-face workshops and thereby increase gender and nationality representation.

Nontraining Intervention

The TNA generated a long list of constraints at the national, institutional, and operational levels, as well as incorporating valuable suggestions offered by the participants on how to minimize or overcome these constraints.

An important area of constraints concerns the necessary policy procedures that could help support agricultural research and rural radio linkages. Advocacy work and lobbying efforts by policymakers can successfully be employed to raise the awareness of the relevance of rural radio among national agricultural research organizations in sub-Saharan Africa. A proposal for an international day of rural radio was also presented.

The lack of public relations and communications policies within the existing agricultural research systems implies that there are additional constraints at the institutional and operational levels of research/radio linkages. Researchers explained the dilemmas they face when disseminating information because of the general lack of available information in their organizations regarding communications and local media. Radio producers/broadcasters, meanwhile, commented on the "closed gates" of research facilities when it came to gathering data for agricultural programs. This is particularly difficult with respect to information exchanges concerning controversial topics related to food shortages and biosafety. Particular emphasis was placed on nontraining opportunities to overcome barriers to information sharing such as inviting the local media to attend annual research review workshops, or attendance at a research site open house, and the promotion of other discussion opportunities.

Inadequate human resource development and management in the context of severe budgetary shortfalls in agricultural research and rural radio organizations was also stressed as a major constraint. Personnel management policies and procedures that emphasize improvement in areas such as staff recruitment and training are also needed. Participants thought there was a need for organizational development that would not only help motivate staff but create an atmosphere of respect for staff members who are willing to improve their performance levels in the area of research/radio collaborations.

TNA participants also stressed the need for more participatory interaction between researchers, broadcasters, and farmers. Supportive organizations should be more decentralized, should promote partnerships with stakeholders, and ensure greater accountability and financial control at the level of the particular program/project. These institutional changes are necessary to enable the projects to meet the operational challenge of demand-driven research programs.

Recommendations

Training intervention

The TNA produced the following major recommendations in the area of training intervention (see also box 1):

- Conduct a training workshop that responds to the priorities of managerial and technical knowledge and to the attitudes of agricultural researchers and radio broadcasters regarding their collaborations with farmers and other stakeholders.
- In the training workshop, address two interrelated thematic areas: facilitating partnerships between research and radio, and mobilizing financial resources for collaborative activities.

Box 1: Key Management Issues for Linking Agricultural Research and Rural Radio

The TNA participants identified the following as the 10 most important management issues that need to be addressed to improve agricultural research and rural radio linkages:

1. identification of financial resources that will improve collaborations between researchers and broadcasters;
2. identification of common objectives among research and radio facilities; demonstration of the added value of researchers and radio broadcasters who work together;
3. planning to include all the stakeholders in the process;
4. evaluation of the impact of rural radio and research collaborations;
5. identification of common objectives in relation to target communities;
6. management of training (curriculum development, the training of trainers, implementation, and evaluation);
7. identification of researchers' and broadcasters' needs through participatory methods;
8. setting of priorities. Study of cultural values, languages and norms of the involved communities.
9. identification of roles and responsibilities involved in the partnerships;
10. communication with the target audience (definition of the languages needed).

- Extend invitations to research/radio linkage partners, not as individuals but as teams. Each team should include at least one researcher and one broadcaster, and possibly one of the following: a leader of a farmers' organization or women's group, an NGO or government extension employee. Evidence of a successful earlier collaboration, or the prospects for a successful future partnership, should be established via the application process.
- Identify areas for long-term training programs that encourage research/radio linkages, which could be included in a subsequent broader project phase. These areas could include TNA-identified priorities.

Nontraining intervention

The TNA produced the following major recommendations in the area of nontraining intervention (see also box 2):

- Take TNA-identified nontraining interventions into account when considering future activities for subsequent phases of a project. This implies interventions based on policy dialogue, research, and long-term capacity building.
- Give special attention to issues concerning policy development to support agricultural research and rural radio linkages.
- Assess the extent to which national agricultural research organizations have a development communications strategy in place, or in the planning stages, that includes rural radio and allocate financial and human resources to outreach activities.
- Create opportunities for the interactions of research groups and rural media, including collaborations in annual research review workshops, regular discussions and collaborative on-farm visits. Conduct initial trials of research/radio linkages and subsequently monitor and evaluate these links.

Box 2: Future Areas of Research to Strengthen the Communication of Agricultural Innovation

The TNA results suggest areas for further research and the development of appropriate analytical methods. These include the following:

- subregional, national, and provincial inventories and the mapping of agricultural research facilities and rural radio stations;
- case studies of what constitutes high-impact agricultural research communication and information exchange;
- rapid priority-setting methods for research and radio collaboration;
- tools for assessing the added value of collaborative efforts;
- impact assessment of rural media and development communications.

Conclusion

The most recent results of the "Linking Agricultural Research and Rural Radio" project, including its TNA, confirm that a critical gap does indeed exist between agricultural researchers and rural radio broadcasters when it comes to the exchange of information and communications with various rural societies. This gap is best revealed by the project participants' observations that the two "facilities" of research and radio rarely, if ever, meet. Both partners also felt that their awareness of farmers' needs and their need to interact with certain rural groups such as women could stand some improvement.

As well, capacity building for researchers and broadcasters who plan to collaborate with farmers and their representative organizations is needed. Other types of organizational support, such as implementing communication policies within national research centers that encourages the exchange of information and the mobilization of existing as well as new resources to support research/radio partnerships, are also essential. With the project's development, additional results, and the project's expansion within the context of international and national systems, the persistent communication gap between rural people and scientists can be bridged by linking agricultural research and rural radio.

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